

CYB561D2 (C-12): sc-102466

BACKGROUND

CYB561D2 (cytochrome β 561 domain-containing protein 2), also known as putative tumor suppressor protein 101F6, is a 222 amino acid highly hydrophobic protein that contains 6 membrane spanning domains. Localized to endosomes and endoplasmic reticulum of the perinuclear region, CYB561D2 contains two heme-binding sites, through which it reduces ferric ions. CYB561D2 is ubiquitously expressed, with highest levels in lung, liver and kidney. Though expression of CYB561D2 is abundant in normal lung bronchial epithelial cells, CYB561D2 is absent in most lung cancers. The gene encoding CYB561D2 maps to human chromosome 3p21.31, a region that is prone to genetic alterations and is associated with frequent and early allele loss in many human cancers. Exogenous expression of CYB561D2 leads to the induction of caspase-independent apoptotic and autophagic pathways, resulting in the synergistic killing of tumor cells. This suggests an important role for CYB561D2 as a therapeutic intervention in cancer treatment.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CYB561D2 (human) mapping to 3p21.31; Cyb561d2 (mouse) mapping to 9 F1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

SOURCE

CYB561D2 (C-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of CYB561D2 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102466 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CYB561D2 (C-12) is recommended for detection of CYB561D2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family member CYB561D1.

CYB561D2 (C-12) is also recommended for detection of CYB561D2 in additional species, including equine, canine, bovine and porcine.

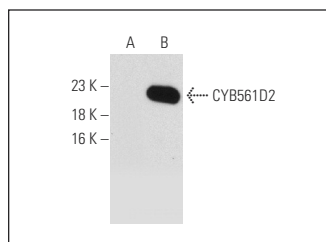
Suitable for use as control antibody for CYB561D2 siRNA (h): sc-78370, CYB561D2 siRNA (m): sc-142649, CYB561D2 shRNA Plasmid (h): sc-78370-SH, CYB561D2 shRNA Plasmid (m): sc-142649-SH, CYB561D2 shRNA (h) Lentiviral Particles: sc-78370-V and CYB561D2 shRNA (m) Lentiviral Particles: sc-142649-V.

Molecular Weight (predicted) of CYB561D2: 24 kDa.

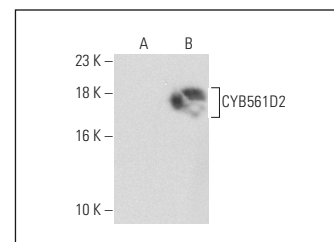
Molecular Weight (observed) of CYB561D2: 32 kDa.

Positive Controls: CYB561D2 (m): 293T Lysate: sc-119539, CYB561D2 (h): 293T Lysate: sc-116117 or H69AR whole cell lysate: sc-364382.

DATA



CYB561D2 (C-12): sc-102466. Western blot analysis of CYB561D2 expression in non-transfected: sc-117752 (A) and mouse CYB561D2 transfected: sc-119539 (B) 293T whole cell lysates.



CYB561D2 (C-12): sc-102466. Western blot analysis of CYB561D2 expression in non-transfected: sc-117752 (A) and human CYB561D2 transfected: sc-116117 (B) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.